CLAIMS

1. A process for materializing a trace in a markup language syntax, the process

    comprising:

5   creating a meta-language grammar;

    creating a trace grammar in which the trace grammar complies with rules of the

meta-language grammar;

    generating one or more traces compliant with the trace grammar;

    parsing the one or more traces;

10 identifying interrelationships within the one or more traces; and

    generating a new version of the one or more traces using a markup language syntax.

2. The process of claim 1 in which a subset of the one or more traces are compliant

with a second trace grammar, the second trace grammar being different from the trace

grammar, wherein the second trace grammar also complies with the rules of the meta-

15 language grammar.

3. The process of claim 2 further comprising:

    detecting a format conflict between the trace grammar and the second trace grammar.

4. The process of claim 1 further comprising:

    generating parsing rules based upon an analysis of the trace grammar.

20 5. The process of claim 1 further comprising:

    analyzing the one or more traces to ensure compliance with the trace grammar.

6.   The process of claim 1 further comprising:

storing results of parsing in one or more tables.

7.   The process of claim 6 in which the one or more tables comprises hash tables

corresponding to keywords in the one or more traces.

5   8.   The process of claim 1 further comprising:

building a semantic network corresponding to the identified interrelationships.

9.   The process of claim 8 in which the semantic network comprises at least one link and

at least two nodes.

10.   The process of claim 9 in which the at least two nodes represent resources and the at

10 least one link defines a relationship between the at least two nodes.

11.   The process of claim 9 in which each of the at least two nodes is represented as a

keyword-UID combination.

12.   The process of claim 8 in which the semantic network is represented using a

semantic network representation language.

15 13.   The process of claim 12 in which the semantic network representation language is

selected from the group consisting of SnePs, SGML or variants of SGML such as XML and

HTML.

14.   The process of claim 8 in which the semantic network is persistently stored.

15.   The process of claim 8 in which the semantic network is built using a semantic

20 network builder system.

16.   The process of claim 8 further comprising:

performing a search for the semantic network based upon a received query.

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17.   The process of claim 16 in which the semantic network is utilized to identify

hyperlinks to be embedded into the new version of the one or more traces.

18.   The process of claim 1 in which the new version of the one or more traces comprises

5   a hyperlink.

19.   The process of claim 1 further comprising defining a second meta-language

grammar.

20.   A system for materializing a trace having markup language syntax, comprising:

        a first mechanism that receives one or more trace grammars, the one or more trace

10   grammars modifiable within rules of a meta-language grammar;

        a parser to parse one or more traces complying with the one or more trace grammars;

        a second mechanism to build one or more semantic networks based upon

interrelationships for the one or more traces; and

        a manifestation mechanism to generate a new version of the traces to include a

15   hyperlink based upon the one or more semantic networks.

21.   The system of claim 20 in which the first mechanism constructs parsing rule utilized

by the parser to parse the one or more traces.

22.   The system of claim 20 in which the parser stores results of the parsing in one or

more tables.

20   23.   The system of claim 22 in which the one or more tables comprises hash tables

corresponding to keywords in the one or more traces.

24. The system of claim 20 in which each of the one or more semantic networks comprises at least two nodes and at least one link.

25. The system of claim 24 in which each of the at least two nodes represent a resource and the at least one link defines a relationship.

5 26. The system of claim 24 in which each of the at least two nodes is represented as a keyword-UID combination.

27. The system of claim 8 in which the one or more semantic networks are represented using a semantic network representation language.

28. The process of claim 12 in which the semantic network representation language is

10 selected from the group consisting of SnePs, SGML or variants of SGML such as XML and HTML.

29. The system of claim 20 in which the one or more semantic networks are persistently stored.

30. The system of claim 20 further comprising:

15 a network navigator mechanism to search the one or more semantic networks.

31. The system of claim 30 in which the network navigator mechanism performs a search of the one or more semantic networks based upon receiving a query.

32. A computer program product that includes a computer-usable medium having a sequence of instructions which, when executed by a processor, causes said processor to

20 execute a process for materializing a trace in a markup language syntax, said process comprising:

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creating a trace grammar in which the trace grammar complies with rules of a meta-language grammar;

generating one or more traces compliant with the trace grammar;

parsing the one or more traces;

5   identifying interrelationships within the one or more traces; and

generating a new version of the one or more traces using a markup language syntax.